



SPYWOLF

Security Audit Report



Completed on
March 4, 2023

@SPYWOLFNETWORK



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SPYWOLF.CO





OVERVIEW

This audit has been prepared for **SamuraiAI** to review the main aspects of the project to help investors make an informative decision during their research process.

You will find a summarized review of the following key points:

- ✓ Contract's source code
- ✓ Owners' wallets
- ✓ Tokenomics
- ✓ Team transparency and goals
- ✓ Website's age, code, security and UX
- ✓ Whitepaper and roadmap
- ✓ Social media & online presence

“

The results of this audit are purely based on the team's evaluation and does not guarantee nor reflect the projects outcome and goal

- SPYWOLF Team -

”





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SamuraiAI



PROJECT DESCRIPTION

According to their whitepaper:

The Samurai smart contract is a cutting-edge solidity code designed to revolutionize the world of cryptocurrency trading. Its sophisticated algorithm can identify all-time highs and higher highs with a high degree of accuracy. These higher highs will be determined by a complex and secure mathematical formula that ensures fair distribution of profits between high-profit gainers and future dip buyers.

Release Date: Launching in March, 2023

Category: AI

01



CONTRACT INFO

Token Name
Samurai

Symbol
Samurai

Contract Address

0xE356F5AEe9e898CC104dc550e26aDf71b2d859D0

Network

Binance Smart Chain
TESTNET

Language

Solidity

Deployment Date

March 03, 2023

Verified?

Yes

Total Supply

1,000,000,000

Status

Not launched

TAXES

Buy Tax

3%

Sell Tax

3%

*Taxes can be changed in future



Our Contract Review Process

The contract review process pays special attention to the following:

- ✓ Testing the smart contracts against both common and uncommon vulnerabilities
- ✓ Assessing the codebase to ensure compliance with current best practices and industry standards.
- ✓ Ensuring contract logic meets the specifications and intentions of the client.
- ✓ Cross referencing contract structure and implementation against similar smart contracts produced by industry leaders.
- ✓ Thorough line-by-line manual review of the entire codebase by industry experts.

Blockchain security tools used:

- OpenZeppelin
- Mythril
- Solidity Compiler
- Hardhat



TOKEN TRANSFERS STATS

Transfer Count	TESTNET
Uniq Senders	TESTNET
Uniq Receivers	TESTNET
Total Amount	TESTNET
Median Transfer Amount	TESTNET
Average Transfer Amount	TESTNET
First transfer date	TESTNET
Last transfer date	TESTNET
Days token transferred	TESTNET

SMART CONTRACT STATS

Calls Count	TESTNET
External calls	TESTNET
Internal calls	TESTNET
Transactions count	TESTNET
Uniq Callers	TESTNET
Days contract called	TESTNET
Last transaction time	TESTNET
Created	TESTNET
Create TX	TESTNET
Creator	TESTNET



VULNERABILITY CHECK

Design Logic	Passed
Compiler warnings.	Passed
Private user data leaks	Passed
Timestamp dependence	Passed
Integer overflow and underflow	Passed
Race conditions and reentrancy. Cross-function race conditions	Passed
Possible delays in data delivery	Passed
Oracle calls	Passed
Front running	Passed
DoS with Revert	Passed
DoS with block gas limit	Passed
Methods execution permissions	Passed
Economy model	Passed
Impact of the exchange rate on the logic	Passed
Malicious Event log	Passed
Scoping and declarations	Passed
Uninitialized storage pointers	Passed
Arithmetic accuracy	Passed
Cross-function race conditions	Passed
Safe Zeppelin module	Passed
Fallback function security	Passed



THREAT LEVELS

When performing smart contract audits, our specialists look for known vulnerabilities as well as logical and access control issues within the code. The exploitation of these issues by malicious actors may cause serious financial damage to projects that failed to get an audit in time. We categorize these vulnerabilities by the following levels:

High Risk

Issues on this level are critical to the smart contract's performance/functionality and should be fixed before moving to a live environment.

Medium Risk

Issues on this level are critical to the smart contract's performance/functionality and should be fixed before moving to a live environment.

Low Risk

Issues on this level are minor details and warning that can remain unfixed.

Informational

Information level is to offer suggestions for improvement of efficacy or security for features with a risk free factor.



FOUND THREATS

⚠ High Risk

When new all time low is recorded, users will get 5% more on their purchase and the 'feesAsIncentive' variable will be reduced by that amount. This can be considered as mint, because contract's token balances are not taken into consideration (accumulated fees) and when 'feesAsIncentive' variable is decreased, the remaining contract balances will be available for swap via the '_swapFees()' function but user balances will still have the extra amount.

```
function _transfer(address from, address to, uint256 amount) private {
    .....
    if (uniswapV2Pair == from) {
        // NOTE: If the price in the new dip the first buyer will get the incentive (5%)
        if (samuraiModeEnabled && _isNewDip()) {
            uint256 incentive = _calculateDipIncentive(amount);
            _recordDip(incentive);

            // transfer the incentive to the buyer
            _balances[to] += incentive;
        }

        fees = amount.mul(BUY_PROTOCOL_FEE).div(100);
    }
    .....
}

function _calculateDipIncentive(uint256 amount)
    private
    view
    returns (uint256)
{
    uint256 incentive = amount.mul(DIP_BUY_INCENTIVE).div(100);

    if (feesAsIncentive < incentive) {
        incentive = feesAsIncentive;
    }

    return incentive;
}

function _recordDip(uint256 fees) private {
    if (fees > 0) {
        feesAsIncentive -= fees;
        lastDipPrice = _getRealtimePrice();
    }
}

function _swapFees() private {
    uint256 protocolFeesBalance = balanceOf(address(this)).sub(
        feesAsIncentive
    );
    _swapTokensForETH(protocolFeesBalance);
    .....
}
```



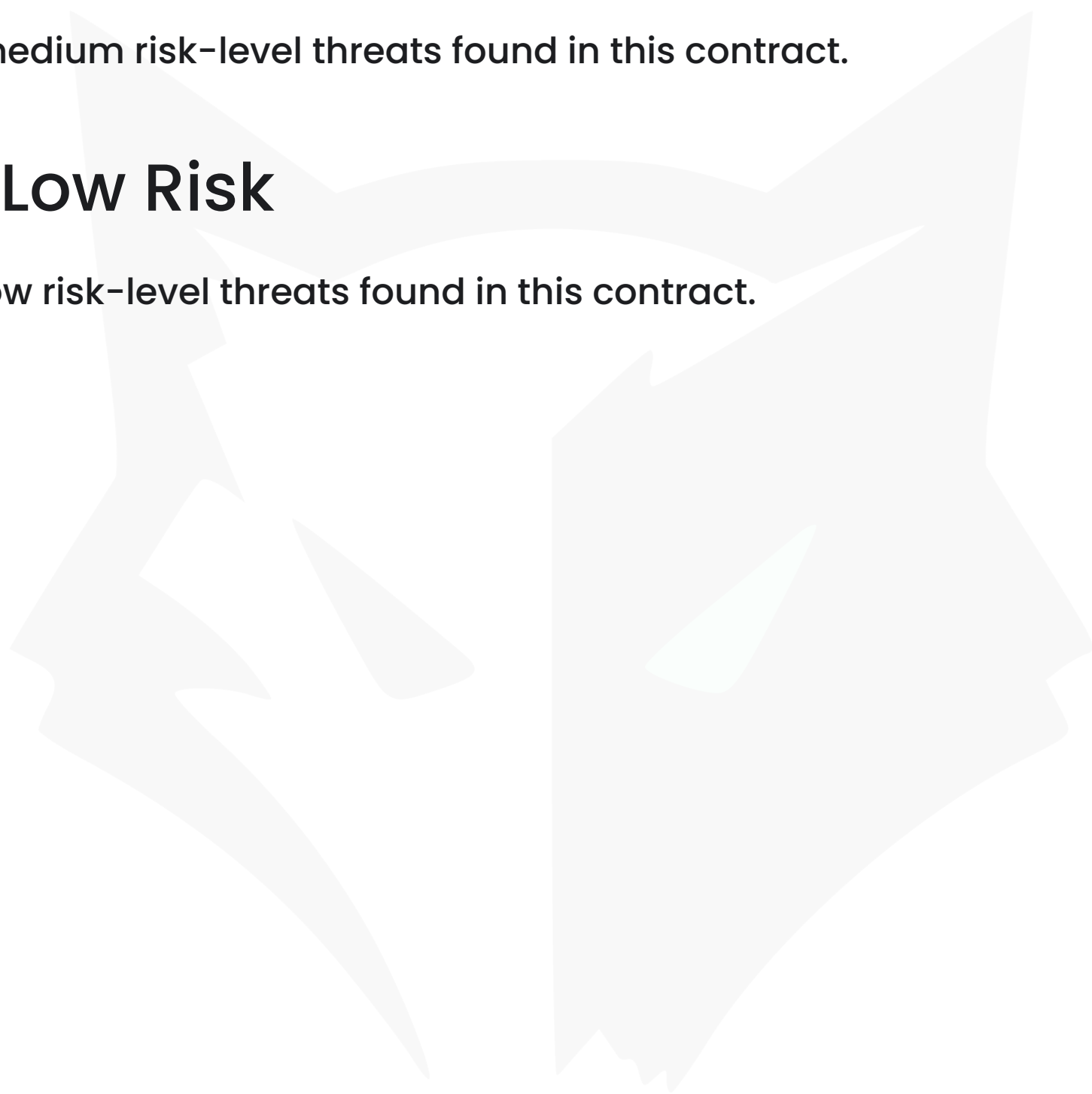
FOUND THREATS

Medium Risk

No medium risk-level threats found in this contract.

Low Risk

No low risk-level threats found in this contract.





FOUND THREATS

Informational

Owner can exclude address from fees.

Addresses excluded from fees are not subject to tax deduction.

```
function excludeFromFees(address account, bool excluded)
    external
    onlyOwner
{
    _isExcludedFromFees[account] = excluded;
}
```

Protocol wallet can initiate manual auto swap.

When auto swap is initiated, the contract will swap its tokens holdings into bnb and distribute it to the respective address.

```
function forceSwapProtocolFees() external {
    require(
        _msgSender() == _protocolWallet,
        "Only protocol wallet can call this method"
    );
    _swapFees();
}
```



RECOMMENDATIONS FOR

GOOD PRACTICES

1

Consider fundamental tradeoffs

2

Be attentive to blockchain properties

3

Ensure careful rollouts

4

Keep contracts simple

5

Stay up to date and track development

SamuraiAI

GOOD PRACTICES FOUND

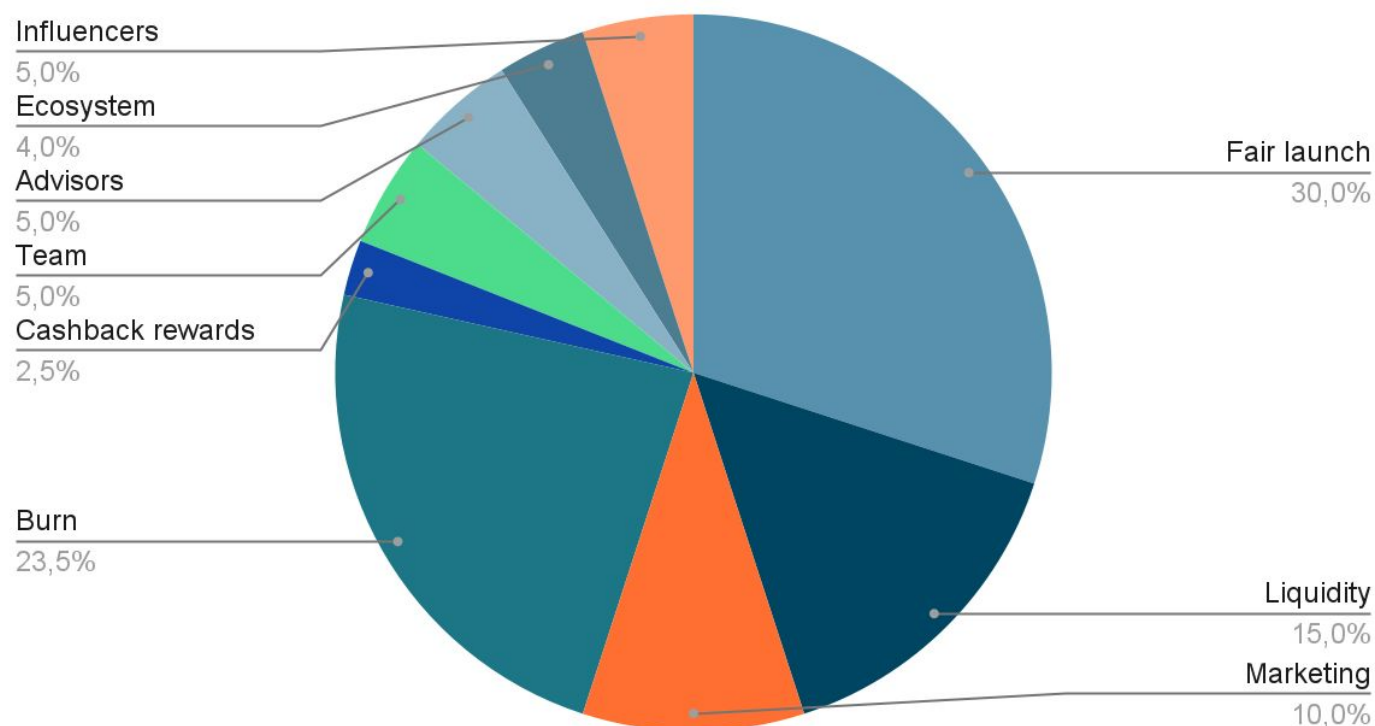
- ✓ The owner cannot stop or pause the contract
- ✓ The owner cannot set a transaction limit
- ✓ The smart contract utilizes "SafeMath" to prevent overflows



The following tokenomics are based on the project's whitepaper and/or website:

- 30% - Fair launch
- 15% - Liquidity
- 10% - Marketing
- 23.5% - Burn
- 2.5% - Cashback rewards
- 5% - Team
- 5% - Advisors
- 4% - Ecosystem
- 5% - Influencers & Partnerships

Tokens distribution



TOKENOMICS



THE TEAM

! The team is anonymous

KYC INFORMATION

! No KYC

We recommend the team to get a KYC in order to ensure trust and transparency within the community.





WEBSITE

Website URL

<https://samurai.tax/>

Domain Registry

<https://www.namecheap.com/>

Domain Expiration

Expires on 2024-02-24

Technical SEO Test

Passed

Security Test

Passed. SSL certificate present

Design

Single page design,
appropriate color scheme
and graphics.

Content

The information helps new
investors understand what
the product does right away.
No grammar mistakes
found.

Whitepaper

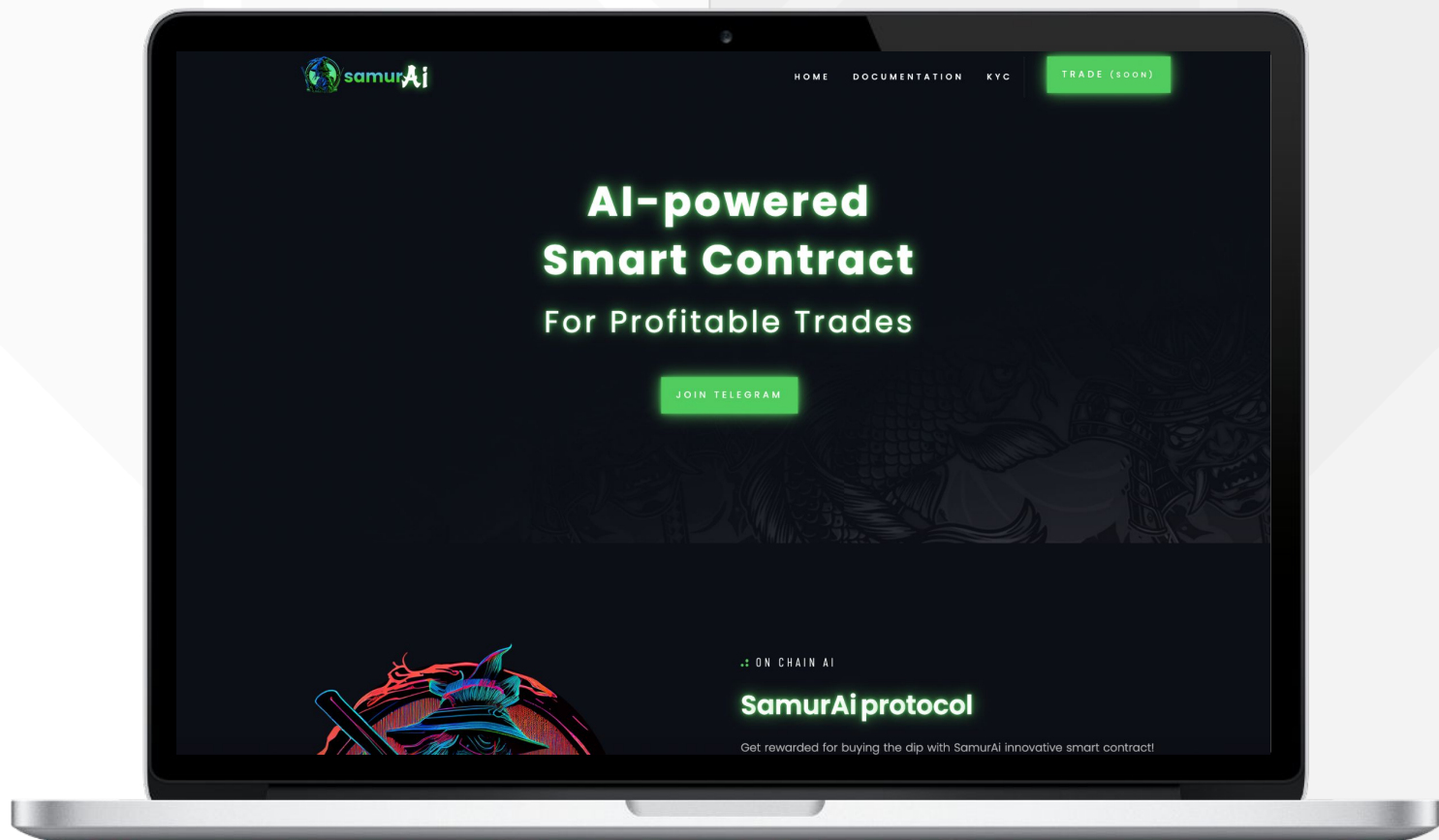
Explanatory information can
be found in the project's
documentation page.

Roadmap

Yes, goals set without time
frames.

Mobile-friendly?

Yes



samurai.tax



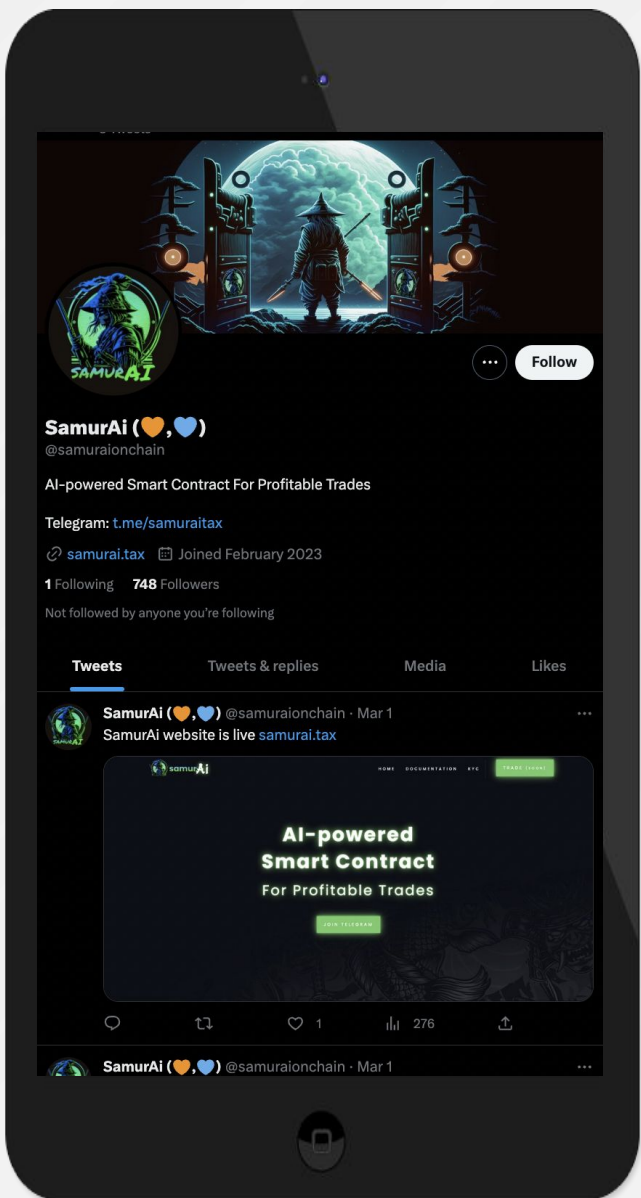
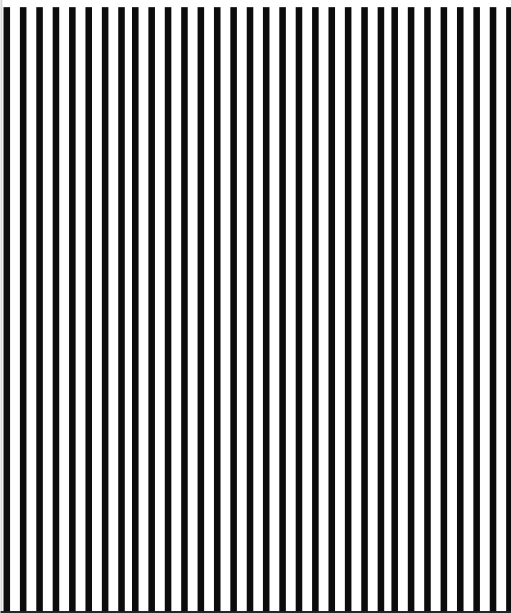
SOCIAL MEDIA

& ONLINE PRESENCE



ANALYSIS

Project's social media pages are active



Twitter

@samuraionchain

- 740 followers
- Posts daily
- 5 total posts



Discord

- Not available



Telegram

@samuraitax

- 1205 members
- Active members
- Active mods



Medium

- Not available



SPYWOLF

CRYPTO SECURITY

Audits | KYCs | dApps
Contract Development

ABOUT US

We are a growing crypto security agency offering audits, KYCs and consulting services for some of the top names in the crypto industry.

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- ✓ MORE THAN 500 SCAMS EXPOSED
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Disclaimer

This report shows findings based on our limited project analysis, following good industry practice from the date of this report, in relation to cybersecurity vulnerabilities and issues in the framework and algorithms based on smart contracts, overall social media and website presence and team transparency details of which are set out in this report. In order to get a full view of our analysis, it is crucial for you to read the full report.

While we have done our best in conducting our analysis and producing this report, it is important to note that you should not rely on this report and cannot claim against us on the basis of what it says or doesn't say, or how we produced it, and it is important for you to conduct your own independent investigations before making any decisions. We go into more detail on this in the disclaimer below – please make sure to read it in full.

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No applications were reviewed for security. No product code has been reviewed.